CALIFORNIA'S HEALTH

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Public Health Reminiscences*

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I deeply appreciate the honor you have conferred upon me by inviting me to become a member of Delta Omega. It is probably a little illegal because I have made a pass once or twice to get into the society, but while I usually got a good dinner out of it, I was always told that there was no way I could join. [Ed. Note: Dr. Hackett became eligible for membership when he joined the U. C. faculty.] It was regrettable, they said, but the fact was, I was born too long ago. I was occasionally invited to speak before the society—and years ago I addressed this society at one of its dinners—and I got the impression as time went on that I was being exhibited, in a way, as a sort of prehistoric sanitarian, a missing link, as it were, between the modern age and those good old days when there were no schools of public health, or any paid health officers and best of all no statistical methods to speak of.

I got my doctorate in public health six years before Whipple produced his famous little textbook on statistics in 1919, dedicated to the first class in the Harvard School of Public Health. In the preface he says that statistics had only recently invaded the United States from England (there seems to have been no quarantine) and were in the "magmatic stage," he said. The big Webster defines "magmatic" as "soft, pulpy—the residuum after the fluid has been pressed out; dregs." You can see that statistics has come a long way since then. Whipple went on: "The care of the public health is becoming a distinct profession. The medical profession is not able to cope with it. Many of you can see the new era coming and you dread the new methods founded on accurate statistical studies of accident, disease, and death. There is no need of this fear. You can use statistics as well as anyone, but you will have to study." Well, the students just had to adjust themselves to this new situation and begin to study, I guess. But I had gotten out of school by that time.

So, while it would be invidious on my part to probe into the legality of this invitation, I can't escape the fact that it is clearly unjustified, in view of the sketchy character of my education. Rosenau had established the degree of Dr. P. H. but there was nobody to give it to. I was his assistant that year, and to keep it from rotting on the vine, he hit on the ingenious scheme of dressing up Dr. William Frost, the Professor of Bacteriology at Madison, who was doing some research work with us at the time, and me, in cap and gown and having us infiltrate the group of people on the platform on commencement day, and receive the diploma from the unsuspecting president of the university.

We had to take an oral examination but Rosenau was disqualified as an examiner since I had been correcting the proofs of his book on *Preventative Medicine and Hygiene* and would know all the answers to any questions he might ask. So the examiners were Theobald Smith, the great comparative pathologist; George Whipple, the sanitary engineer; and Walter Cannon, the physiologist. Physiology was considered one of the cornerstones of hygiene in those days, and a physiologist, Dr. Howell, had just been appointed director of the new School of Public Health at Johns Hopkins. I am sorry it seems to have dropped out of the curriculum nowadays. We shall have to get back to it, I think, if the white man is going to inhabit the tropics. When the insect-borne diseases are cleared up, we shall be face to face with the underlying problem of physiological hygiene in warm climates. However, at a time

* Presented at May 9, 1952, meeting of Zeta Chapter, Delta Omega, public health honorary fraternity at Berkeley, California.

when we were excavating to lay the foundations of public health with sanitation and communicable disease control, physiology may have been premature.

Anyway, I could see that my examiners were ill at ease since they were at a loss for questions to put to me. Theobald Smith, who had recently discovered the insect transmission of diseases, finally asked me what factor set the northern limit to the spread of malaria. I knew nothing about malaria but I knew enough to say "insect transmission," and got 100 percent on that question. Whipple asked how I would go about keeping typhoid fever down to the so-called normal rate of about 10 deaths per 100,000. I immediately said that I would endeavor to have the sewage system kept entirely distinct from the water system. O.K. on that. Then Dr. Cannon suddenly inquired why an angry cat arches its back. This wasn't so easy, but I knew that he was working on glandular secretions so I hazarded the guess that a cat arched its back in order to squeeze its adrenals. So I got my degree and went to work almost at once for the newly created Rockefeller Foundation.

Public health was rather simple then. A student didn't have such a long way to go to reach the frontiers of our knowledge. It was all defensive—sanitation and communicable disease. "Negative" approach they call it today, but I find that too derogatory. Sanitation and communicable disease control were and are very important and fundamental. They are the best developed of all of our activities, and have lowered the death rate more than any other measures. At any rate we emerged from school knowing almost all there was to know in our specific field, but almost nothing about people. I had to learn that the hard way. I was sent to deal with some very foxy South American politicians to teach them the principles of public health. Fortunately, after they had made a few ineffectual passes at our funds, and had tried in vain to locate relatives on our pay rolls, they lost interest in us and after convincing themselves that we were harmless, let us do about what we pleased. We then tackled the hookworm problem which covered the whole rural health situation like a blanket, and did the best we could without an effective treatment or any satisfactory way of preventing soil pollution. However, hookworm was an excellent entering wedge to all sorts of sanitary activities and the organization of local services, so that it kept us very busy for years.

Americans were credited with having the know-how as regards public health organization and practice. But what actually was the public health background in the United States which led the Rockefeller Foundation and our underdeveloped neighbors to imagine that America led the world in sound public health principles? What was public health like in our Country in 1913 when the Rockefeller Foundation was founded? The first edition of Rosenau's book came out in that year; there was nothing in it about nutrition, housing, or maternal and child health. Epidemiology was a short paragraph at the end of each communicable disease. But that book tackled the great problems of the time—food protection, communicable disease control and environmental sanitation. It played its part in the almost incredible improvement of the past 40 years. All of Rosenau's diseases were wiped out in one generation. Tuberculosis used to kill 250 of each 100,000 people—now it kills less than 30. Infant mortality in New York was 135; now it must be in the 20's. Our new positive public health is built on the solid foundations laid in Rosenau's day.

The best document on the status of public health in 1913 is Chapin's report on the state boards of health, made for the American Medical Association. It caused a public scandal. Its publication was delayed for three years. When it finally appeared in print there was a furor of criticism. One of the state directors of health bought up all the copies he could lay hands on and burned them. The report is hard to find now.

In this report, Dr. Chapin attempted the first rating ever made of health organizations. He listed 35 activities, adding up to 1,000 points. Thus the states were for the first time compared with each other, and with perfection. Massachusetts was the highest with 745 points, though marked zero in eight activities. Only six other states had passing marks with 500 or more points: these were New York, Pennsylvania, Minnesota, New Jersey, Indiana, and Maryland. The rest trailed behind, with seven below 100, and New Mexico brought up the rear with zero.

West Virginia is a good example. The state health budget was $2,500; there was no sanitary control of water or food, no laboratories, no distribution of biologics, no vital statistics or anything else. Most of the states had been in the same situation before 1900. There were no trained health officers, and of course an untrained health officer follows; he does not lead. If he is well intentioned he follows the unbalanced amateur reformers, if venal he follows the corrupt politicians—both equally dangerous. Hookworm was unheard of; a rather high incidence of typhoid was considered "normal"; tuberculosis was fought in the sanatoriums. Trudeau started this idea. (He was a fibrous case himself, and they do very well in sanatoriums. They live a long time.) Rosenau's crusade was for pasteurized milk, but it was frowned upon by health officers and physicians alike. They recommended raw milk, and because of the danger of tuberculosis, goats were imported into the United States from the Mediterranean region, introducing Malta fever.

There are some amusing points about individual states; I have time for only a few.

Alabama: The board of health was the state medical association and the county boards of health were the county medical societies.

Connecticut: The health officers were mainly lawyers. Since public health was the enforcement of laws and regulations, lawyers were the best people to handle it!

Illinois: The main function of the board of health was to examine and license physicians. There was however also a lodging house inspector for Chicago.

Kentucky: The board of health was composed of representatives of the regular, homeopathic, eclectic and osteopathic medical groups. It was therefore a privately and not publicly appointed board.

Nebraska: In 1913, 81 cases of scarlet fever were reported, of which *84* died!

In half the states, the funds earmarked for communicable disease could only be used in case of serious epidemics, usually of cholera or yellow fever. This was the "fire department" type of public health.

Malaria: This was a disease of first importance with millions of cases and thousands of deaths. Few preventative measures were taken till about 1915 after a survey by the Public Health Service, which inaugurated experiments in minor drainage for mosquito control. There had been spotty efforts at mosquito control dating from the early 1900's by some communities. California was one of the first to initiate malaria control measures under W. B. Herms and Harold Gray in 1910, followed by the first mosquito abatement districts in 1916. But in our South, there was complete apathy. However, malaria cases were often placarded, since to prevent placarding, physicians often called typhoid-fever cases malaria.

Smallpox was everywhere. Vaccination was not enforced in schools and several boards of health in desperation at not securing state laws to support them, abandoned quarantine entirely to shock the public into some reaction.

Venereal disease — zero. The only epidemiology practiced in the United States concerned itself with smallpox—not typhoid, diphtheria or venereal disease in spite of their prevalence.

Tuberculosis was in the hands of private physicians and laymen (the National Tuberculosis Association). The well-to-do were sent to sanatoriums. Most laymen and many doctors doubted that it could be communicated from one person to another.

Child hygiene: There were no pediatricians, who are the real health officers of the growing family. The attention was focused on improving milk for children, but Strauss in New York and Adelaide Brown in San Francisco fought an uphill fight for pasteurization and certification. Public health nurses did not really become a factor until after World War I and the Goldmark Report, published in 1923. Local Red Cross units had funds left over after the war, which they were persuaded to spend on nurses.

Public health education: Chapin said that what there was, was mainly dishonest and untruthful.

Per capita expenditure: Here we come to the nub of the matter.

Florida was first, with 15 cents—the only state to assess a mill tax for health, spent by politicians. (Florida was far down Chapin's rating list); Pennsylvania second—13 cents; Massachusetts a poor third with 5 cents; New York fourth—3 cents; and so on down to Tennessee—0.7 cent; Arkansas—0.5 cent; and New Mexico—0.0 cent.

Only seven states appropriated more than 5 cents and these made a curious collection of advanced and backward communities: Florida, Idaho, Maryland, Montana, Nevada, Pennsylvania and Vermont.

I must confess that I can hardly believe these figures myself. I was actually a student and a teacher of public health at this very period, but as far as I can recollect I did not burn with indignation except in sympathy with Dr. Rosenau over the question of pasteurized milk. It wasn't that we were faced with insoluable problems and frustrated by popular inaction. I guess we didn't see the problems or correctly appraise the situation. What seemed to us the normal predicament of humanity in those days would be considered an alarming crisis today in the United States and the indication of a very primitive stage of social development even in what we now call the undeveloped areas of the world.

In any event it was from this sort of background that I was sent forth by the Rockefeller Foundation in 1914 to reform South America. I tackled Brazil first. They didn't know they had hookworm at all when I arrived, but before I left, 94 percent of the rural inhabitants were saddled with it. That was quite an accomplishment!

Then we went on to malaria and yellow fever. Malaria was not exactly a difficult problem. It was either quite easy to control, or manifestly impossible, depending on the locality. We selected the easy places. I made the mistake of inviting Dr. Mark Boyd to come to Brazil and study the situation. There were only about three anophelines of any importance when he arrived, but Boyd began comparing these with the pictures in the books, and soon he was inventing new species and subdividing the old, until, when he left, there seemed to be a lot more mosquitoes in Brazil than ever before, and these were wrapped in a confusion of nomenclature that no one has ever been able to clear up. Dr. Peryassu, Boyd's Brazilian entomologist, in a

friendly gesture of appreciation and hospitality, named one new species *Anopheles rockefeller,* but no specimen of this has ever been captured. However, our malaria work was considered a great success and I was later sent to Italy on the strength of it.

As for yellow fever, we thought we had it pretty well extinguished by cleaning *Aedes aegypti* out of all the big ports. It was then supposed to disappear spontaneously from the hinterland. When it hung on and hung on, we brought Dr. Soper down to tighten up the discipline in the yellow fever service and he promptly invented jungle yellow fever in the monkeys of the Amazon forest, and now we never shall get the disease eradicated. This was a nice piece of epidemiological induction and won us all a lot of kudos and one Nobel prize.

All the while I went about giving good advice. As Mark Twain once said, "to be good is noble, but to tell others to be good is noble, and no trouble." The roadblock to progress was of course, ignorance. We had the "savoir faire" without the "savoir"— the "know-how" without the "know." The Rockefeller Foundation which had started out by believing that our knowledge was 50 years ahead of our practice, now realized that whenever we began to put what we knew to work, we discovered great gaps in our information. This led to a program of field and laboratory research which grew in time to such importance as almost to unbalance our work.

Investigation, tied in with application, was the key to everything good, lasting and important in our international program. We ended with a better knowledge of the threats to health in the tropics, and with full-time health officers and modern programs developing as fast or faster than here at home. These organizations and programs were South American, not imitations of North American practice. Our difficulty was always to hold the local governments back, not to spur them on. They always wanted to expand faster than they could prepare personnel.

Public health has proved to be the most successful of the applied social sciences—so much so that in backward countries, economic and educational measures have been unable to keep pace. That is why we have a population problem in undeveloped areas, but it is hard to see why the entire blame should rest on the agencies of public health.

Our mistakes were not in being too efficient and reducing the death rates too quickly, as we are now charged with doing. Our errors were nearly always due to yielding to pressure by governments or politicians, and acting in a hurry as though there were an emergency. The best advice I ever had was from one of our directors who said, "Hackett, don't let them stampede you." There were two things we tried to have before we started anything: trained personnel and sufficient knowledge of the problem and how to solve it. This might take years, of course. Personnel meant fellowships and local schools of hygiene; knowledge meant investigation in field and laboratory.

We became investigators and administrators at the same time, or in alternating periods. There is a belief, especially in Latin America, that research ability is possessed only by a few exceptional persons. It is true that the great revelations come rarely and unexpectedly. But anyone with a spark of curiosity can put together small bits of the evidence that nature scatters about the scene, or cunningly hides. These little illuminations are important too—matches struck in the dark. They lend excitement and satisfaction to what would otherwise be an uninspired harvesting of the literature.

I think the spirit in our school here at the University of California is very inspiring in this respect. Our friendly dean (Dr. Charles E. Smith) and his colleagues set the example by teaching a warm, living science. Any course, whether it be in administration, statistics, epidemiology or education, becomes a sterile routine unless kept in touch with experimental verification. A Stanford professor wrote the epitaph of the sort of lecture system under which I suffered and which still afflicts the Latin American universities, when he said that the old type of lecture was a process by which the notes of the professor became the students' notes without passing through the mind of either.

Institutes of learning without research are like pithed frogs, demonstrating the curious phenomenon of nutrition and activity without intelligence. Education is not an accumulation of facts; it is an accumulation of experiences. I am happy to belong, in my humble capacity, to a school like ours, and to a society like this, dedicated to keeping the scientific spirit alive.

Medical and Scientific Research Grants

The Public Health Service announced that during the first half of the current fiscal year 249 new research grants totaling $2,188,699 have been made to universities, hospitals, medical and dental schools, and other nonfederal research institutions to help support medical and scientific research activities. These grants are in the fields of cancer, heart disease, dental research, arthritis, mental health, the metabolic and neurological diseases and blindness, infectious and tropical diseases and other public health problems. In addition to the new research projects, a total of 228 renewal grants were made for the continuation of scientific studies currently under way.

Film Catalog Supplement

This is a supplement to the 1952 catalog, HEALTH FILM SERVICES, of the California State Department of Public Health, Bureau of Health Education, Room 1150, Phelan Building, 760 Market Street, San Francisco 2, California. This supplement can be clipped and pasted into the blank pages left for that purpose at the back of the catalog.

COMMON COLD

How to Catch a Cold — **10 minutes. 1951**

Made for the International Cellucotton Products Company by Walt Disney Productions. This film points to no remedies but emphasizes prevention, rest for hastening recovery, means and methods of protecting people from colds. Its clever, amusing, and fast moving treatment of the common cold makes it appealing to all. Recommended for showing to boys and girls of junior and senior high school age; also for general community use.

DENTAL HEALTH

Drop in the Bucket — **Color. 13 minutes. 1952**

Produced by the U. S. Public Health Service. Approved by American Dental Association. Tells the story of how one community brought the benefits of fluoridated water to its children. Shows how the citizens got together with the dentists and public officials to bring about fluoridation before it was the widely recognized public health measure it is today. Based in part on the story of how the people of Newark, Del., added fluoride to their water supply, the film answers scores of questions people are asking about fluoridation: "What good does it do?" "How much does it cost?" "What is fluoride?" "How do you add it to water?" "Is it dangerous?" "Isn't it mass medication?" and others. Recommended for community groups interested in getting the facts about fluoridation. Available in black and white for television.

Fluoridation — **Color. 5 minutes. 1952**

Produced by the U. S. Public Health Service. Approved by American Dental Association. An animated short. Describes the benefits obtained from fluoridation of the water supply in Grand Rapids, Mich. Provides information concerning types of feeders and fluorine compounds which can be used for fluoridating water supplies in communities of various sizes. Suitable for professional use with community groups contemplating fluoridation. Available in black and white for television.

Fluoridation Story — **Color. 4 minutes. 1952**

Produced by U. S. Public Health Service. Approved by American Dental Association. An animated short describing the benefits residents of communities with fluoridated water may expect in reduction of dental caries. Recommended for community groups contemplating fluoridation.

FOOD AND MILK SANITATION

"The Stowaway" Series—Produced by the U. S. Army

Excellent for foodhandlers training courses.

1. Disease and Personal Hygiene — **17 minutes. 1951**

Depicts ways in which spread of disease is caused by careless personal hygiene of foodhandlers; sanitary precautions and remedies.

2. Galley Sanitation — **24 minutes. 1951**

Shows how any food service organization should exercise every precaution to insure all sanitary measures in preventing the spread of disease.

3. Food Storage — **12 minutes. 1951**

Careful inspection of food by the U. S. Army Veterinary Corps, the Bureau of Animal Industry, and the Port Food Service Inspector before procurement and use aboard troop transports; facilities for food storage and preservation of food.

HUMAN BODY AND ITS FUNCTIONS

Normal Birth — **11 minutes. 1951**

One of the "Education For Childbirth" series produced by Medical Films, Inc. The others are *Prenatal Care* and *Labor and Childbirth*. It presents in literate pictorial terms the birth of a child. The narrative is keyed to the mother's viewpoint, explaining what she will experience during the birth of her own child. Simplified diagrams explain the action of the uterine muscles and the movement of the baby through the birth canal. Recommended only for adequately supervised and prepared groups. Should be shown to prenatal parents classes by the physician or nurse instructor after considerable preliminary preparation. Although directed to expectant mothers, it would be valuable in training medical and nursing students.

MATERNAL HEALTH

Concept of Maternal and Neonatal Care — **26 minutes. 1951**

Produced by the Departments of Obstetrics and Pediatrics of the George Washington University School of Medicine and the Medical Film Institute of the Association of American Medical Colleges. The film shows a continuity of care from the first prenatal visit through delivery, hospital stay, and return home with a new baby. The interrelations of the medical team of obstetrician, pediatrician, hospital administrator and nurses are well presented. In the hospital portion of the film, emphasis is placed upon a balance of scientific facilities, educational experiences, and homelike accommodations with a rooming-in system. A variety of room and nursery arrangements are illustrated to show that in a relaxed attitude of helpful hospital care, regardless of the facilities selected, mother and father gain assurance and understanding of their role as parents. Suitable for physicians, medical students, nurses and hospital administrators.

Prenatal Care — **21 minutes. 1952**

Another in the *Education for Childbirth* series produced by Medical Films, Inc., this film details normal pregnancy through the nine-month period. Three women, representing the first, second and third trimesters, portray the experience in terms of what the average mother-to-be may expect. Recommended exercise, clothing, diet and reportable symptoms are presented. Diagrams are included to illustrate the growth of the child within the uterus. Like the previous films in this series, *Labor and Childbirth* and *A Normal Birth*, this one is based on the premise that knowledge of what to expect decreases fear of childbirth and increases enjoyment of the period of pregnancy.

MENTAL HEALTH

Farewell to Childhood — **23 minutes. 1951**

This film is part of the series *Emotions in Every Day Living*. It was prepared for the North Carolina Board of Health by the Mental Health Film Board and approved by the National Institute of Mental Health, Public Health Service. Develops the familiar modern situation in which a 15-year-old girl feels she's old enough to live her own life without much interference from parents. Dramatizes parental concern over the girl's seemingly unreasonable crankiness and obstinancy, but it goes on to show these irritating factors are not without grounds. For instance, the parents embarrass her boy-friend when the couple arrives home late, and they further embarrass the girl by calling her friends to locate her. It points out the paradox of expecting her to "act her age" and yet giving her little chance to do so. It also points out that the girl longs for the independence and privileges of adulthood, but at the same time she fears them. Suitable for college students, parents, teachers, and interested adult and child study groups.

Fears of Children — **30 minutes. 1951**

Part of the series *Emotions in Every Day Living*. Prepared by the Mental Health Film Board for the Oklahoma Department of Mental Health, and approved by the National Institute of Mental Health, Public Health Service. This film deals in a realistic natural way with a normal healthy child of five and his relationship to his parents. A situation is drawn in which the mother tends to coddle the child and the father advocates sterner discipline. The resulting conflict serves only to confuse the boy, and magnify rudimentary fears. The difficulties are resolved by the parent's efforts to understand each other and channel their efforts in rearing the

child into one constructive force. Designed primarily for use with parent groups by a qualified discussion leader, it should also be useful for teachers and child study and discussion groups.

MULTIPLE SCREENING

At Our House — **9 minutes. 1951**

Tells of one family's experience with a multiple screening project. Produced by Communications Materials Center under the auspices of the State of Vermont Department of Health with technical assistance by the U. S. Public Health Service. A screening center is shown in operation. The film shows the tests used, and shows how the project can guide a patient to his personal physician for diagnosis and treatment of a previously unsuspected chronic disease. Cleared for television. Recommended for groups planning multiphasic screening programs.

VOLUNTEERS

V for Volunteers — **20 minutes. 1951**

Made by the National Film Board of Canada to explain why more volunteers are needed. It tells for the Millers, a young suburban family "too busy" to help in community welfare activities. It describes Mrs. Miller's "awakening" when she is asked to drive a crippled child to a free polio clinic, and her husband's conversion when he realizes the importance of a youth center to the young people in their community. It introduces the many activities of volunteers through a trip Mrs. Miller makes to the Central Volunteer Bureau. Shows that while the brunt of social welfare services must be borne by professional social workers, there is still a great need for volunteer, part-time workers. Useful for recruiting volunteers and explaining their function.

WATER SANITATION

Pipeline to the Clouds — **Color. 35 minutes. 1951**

Produced by the General Electric Company in cooperation with the U. S. Public Health Service. An excellent film showing the problem of water conservation and distribution. Animation is used to clarify various means of building water reserves. Details the consequences of depletion of water supplies as seen in arid waste lands and lost stability of economic balance. Examines the problem of water distribution and re-emphasizes the individual's part in conservation. Recommended for high school, college and community groups.

Hygiene of Aging Program Set Up by P. H. S.

On June 23d Surgeon General Leonard A. Scheele formally announced the establishment within the Public Health Service of a new program on hygiene of aging. Administratively it will fall within the Division of Chronic Disease and Tuberculosis of the Bureau of State Services and will be in direct charge of Dr. Cletus L. Krag, former research assistant in gerontology at Washington University School of Medicine. Doctor Krag, a native Californian, did his undergraduate work at Stanford University and served an internship at Los Angeles County Hospital.

The general purpose of the program will be to advise health departments offering health guidance for older people and to help health departments consider the needs and problems of the aging groups in all their programs.

"Increased emphasis will have to be placed on preventing and alleviating the ills of older adults and on helping them play a more active role in the community. Health agencies can do a great deal toward making the later years happier and more productive," Doctor Scheele said.

Encephalitis Epidemic Threatens in Central Valley

Encephalitis, sometimes known as "sleeping sickness," may become epidemic in the Central Valley of California this year unless intensified action against the mosquito which transmits the disease is taken by control agencies and individual householders alike. The threat of a mosquito-borne epidemic is indicated in reports of both human and horse cases of encephalitis in the San Joaquin Valley, coupled with the appearance in the valley of extremely large numbers of adult *Culex tarsalis* mosquitoes, carrier of the disease.

During the second week in July reports have been received of seven cases of encephalitis, three of which are laboratory confirmed as the western equine type. All but one of these cases had their onset in June. In addition to these there are about 20 suspected cases in the endemic area with diagnosis awaiting laboratory results. One horse case of encephalitis in Kern County has been confirmed by laboratory findings.

A special "council of war" to discuss ways of meeting the impending danger has been held by representatives of the State Department of Public Health, its Vector Control Advisory Committee and representatives of mosquito abatement districts in the Central Valley.

A combination of factors has created the potential threat of an epidemic of mosquito-borne encephalitis in the Central Valley this year, particularly in the lower San Joaquin Basin and diminishing northward to the central portion of the Sacramento Valley. (1) A wet year has resulted not only in the continued presence of water dispersed over many acres of river bottom land, but has also prompted the deliberate spreading of surplus water onto agricultural land to replenish underground supplies. These two conditions have resulted in the breeding of hordes of the incriminated species of mosquito. (2) Cool weather during early summer, followed by sharply rising temperatures threatens to bring about an immediate mass migration of adult mosquitoes into populated areas. (3) There may well be an increased susceptibility to the disease among residents of the valley area as a result of several years of low incidence of encephalitis and large-scale immigration of nonimmune people into the area. These conditions in the Central Valley, coupled with the fact that the reservoir of encephalitis infection remains present among birds and fowl, provide the necessary ingredients to produce an outbreak of this mosquito-borne disease.

Action suggested at the meeting of the Vector Control Advisory Committee is directed to both individual householders and control agencies, including local

health departments, mosquito abatement districts and irrigation districts. Individual householders are urged to: (1) Eliminate mosquito-breeding sources around their premises. *Culex tarsalis* mosquitoes breed in small collections of standing water, including overflow sewage and water from ice boxes and air-cooling devices. (2) Keep adult mosquitoes out of the house by careful screening of doors and windows. Mosquitoes getting indoors should be killed by using hand sprays or aerosol bombs. (3) All persons, and particularly children, should protect themselves against mosquito bites by remaining indoors as much as possible during evening hours, when *Culex tarsalis* usually attack, and by using mosquito repellents when outdoors exposure is necessary. Young children are believed to be more susceptible to encephalitis than adults and are more likely to have permanent after effects.

Health departments are asked to be on the alert for cases, maintaining close contact with the private physicians in their area. This is to provide an up-to-the-minute state-wide picture, with the earliest possible warning of epidemic conditions. Encephalitis cases in the high-prevalence areas of the Central Valley normally reach a peak in the summer months of July, August, and September.

Mosquito abatement districts are urged to intensify their control measures directed specifically at the *Culex tarsalis* species. Irrigation districts, and individual ranchers, are asked to support the control measures, giving particular attention to irrigation practices to prevent unnecessary standing water which would create mosquito breeding places.

Executive Secretary Chosen for C. T. H. A.

Mrs. Dalrie S. Lichtenstiger was appointed Executive Secretary of the California Tuberculosis and Health Association at the June 28 meeting of the Board of Directors in Los Angeles. She succeeds Laurence R. Kirk, who resigned in January, 1952. In the interim Richard L. Head, Director of Program, served as acting Executive Secretary.

Mrs. Lichtenstiger has had wide experience in the field of tuberculosis control. She served as Executive Secretary of the Los Angeles County Tuberculosis Association for more than two years, and prior to that was Supervisor of Field Service in the State Association. She has also held executive positions with the local associations in Contra Costa and Solano Counties. During the recent National Tuberculosis Association Convention in Boston, she was elected president of the National Council of Tuberculosis Workers.

Innovation in Polio Morbidity Reporting

The Bureau of Acute Communicable Diseases of the State Department of Public Health has prepared a cumulative record to date of the morbidity reporting for poliomyelitis including data on paralytic status. This report has been sent to all local health officers and will be followed by monthly releases showing reported poliomyelitis incidence throughout the State by county of probable contraction, by month of report and paralytic status. This is an innovation in the distribution of current poliomyelitis reports to local health officers and it is hoped will meet a long felt need during the polio season.

At the beginning of the polio disease year of 1952-53, which is April, 1952, the Bureau of Acute Communicable Diseases discontinued the use of the supplemental history form for poliomyelitis and asked that the paralytic status of the cases be stated on the morbidity card and that corrections in the final diagnosis to "not poliomyelitis" be forwarded to their office promptly so that the case can be deducted currently. With each monthly tabulation a corrected (cumulated total) table covering April to the date of release will be prepared.

This change was made because there is evidence that the nonparalytic cases reported are probably only a small fraction of the actual number of minor illnesses caused by the poliomyelitis virus and their inclusion *without qualification* in statistical reports of the disease presents an incomplete picture.

Polio Research Grant Awarded Department

A March of Dimes grant of $20,152 will enable investigators at the California State Department of Public Health to evaluate an experimental diagnostic blood test for human polio. This was announced jointly July 9, 1952, by Basil O'Connor, President of the National Foundation for Infantile Paralysis, and Dr. Wilton L. Halverson, State Director of Public Health.

Under the guidance of Dr. Edwin H. Lennette, Chief of the Viral and Rickettsial Disease Laboratory, an evaluation will be made of an experimental complement fixation test for polio recently developed by scientists in the East. Preliminary results reported by the original investigators indicate that the method holds some promise of being successful in clinical practice.

Specifically, Dr. Lennette's group will attempt to make a comprehensive and orderly evaluation of this and other methods in the diagnosis of human poliomyelitis.

Fluoridation of Milk Impractical—P. H. S. Policy Statement

The plan is sometimes advanced by opponents of fluoridation of water supplies that milk be fluoridated instead, since the benefits are for children and children drink milk. The members of the nation-wide Conference of State Sanitary Engineers at their last annual meeting requested information as to the factors which, on the basis of present knowledge, negate against the fluoridation of milk. In answer to this request the Public Health Service has formulated a policy statement on the subject. It is given below.

"The Public Health Service does not favor the addition of fluorides to milk for the purpose of prevention of dental caries. The reasons for this position are as follows:

"(1) It is not known whether the addition of fluorides to milk is effective in preventing tooth decay, although it is known that such addition is effective in water. Further studies of this matter are indicated.

"(2) The individual consumption of milk by children varies considerably more than their water intake. For economic and other reasons, a considerable number of children in some age groups consume little or no milk. Furthermore, the use of fluorides in milk has not been investigated. On the other hand, we do know, on the basis of examination of many thousands of children who have consumed water varying in fluoride concentration, the amount of fluorides which must be added to water to be effective.

"(3) The possibility that fluoridation of milk may be harmful in an area where the water supply is fluoridated or already contains sufficient fluorides.

"(4) The practical difficulties and hazards that would exist, both in controlling the rate of application and in testing the amount of fluorides added to relatively small volumes of milk by the large number of individual milk plants that might adopt this practice. From an administrative standpoint, the fluoridation of milk would spread the responsibility for control, and would necessitate the introduction of a complicated system of supervision.

"(5) The likelihood that only a portion of the milk supply would be fluoridated in a given market, resulting in a lack of uniform distribution. This would reduce the benefits to be obtained by the community as a whole. From this point of view, it would appear that water is a much better vehicle."

Review of Reported Communicable Disease Morbidity

June, 1952

Diseases With Incidence Exceeding the Five-year Median

Diseases	*June, 1952*	*June, 1951*	*June, 1950*	*Five-year median*
Amebiasis	64	43	17	26
Brucellosis	15	9	10	10
Chickenpox	3,875	3,451	3,013	3,451
Food poisoning	104	20	21	53
German measles	1,145	458	246	453
Hepatitis, infectious	38	24	30	25
Influenza	39	30	16	33
Malaria	16	3	--	3
Measles	6,725	8,130	2,533	4,864
Meningitis, meningococcal	28	19	17	19
Poliomyelitis	149	119	90	119
Salmonella infections	52	28	42	18
Shigella infections	52	40	37	37
Streptococcal infections, respiratory, including scarlet fever	479	654	410	410

Diseases Below the Five-year Median

Diseases	*June, 1952*	*June, 1951*	*June, 1950*	*Five-year median*
Coccidioidomycosis (disseminated)	2	3	12	7
Diphtheria	11	17	21	38
Encephalitis, infectious	--	6	7	6
Mumps	3,130	1,541	3,155	3,155
Pertussis	351	311	658	410
Rabies, animal	15	8	19	19
Typhoid fever	1	5	6	3

Children's Bureau Film List

The Children's Bureau has published a film list entitled Motion Pictures on Child Life. Dr. Martha M. Eliot, chief of the bureau, said the list was prepared in answer to hundreds of requests for such information.

The list includes more than 450 films (16 mm.) on the social, medical, environmental, mental and developmental aspects of child life. There are brief descriptions of each film but no attempt has been made at evaluation, so that a listing is not a recommendation.

The listing should be very useful for reference purposes to parent and teacher groups, health educators, schools, universities, welfare departments and all groups working with children. The Children's Bureau plans to issue supplements at intervals and would welcome information about films to be included.

Copies of Motion Pictures on Child Life are available from the Government Printing Office, Washington 25, D. C., for 40 cents a copy.

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